

CENTRAL INTELLIGENCE AGENCY  
INFORMATION REPORT

COUNTRY Germany, Soviet Zone  
SUBJECT Walter Ulbricht Werke Facilities

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50X1  
PLACE ACQUIRED  
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NO. OF ENCLS.  
(LISTED BELOW)  
SUPPLEMENT TO  
REPORT NO.

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THIS IS UNEVALUATED INFORMATION

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1. The Walter Ulbricht Werke, formerly the Leunawerk, is near Merseberg. estimated the 1950 production at the plant and the figures to be accurate within plus or minus 10%. 50X1

- a. 200,000 metric tons - Ammonia
- b. 20,000 " " - Methanol
- c. 50,000 " " - Gasoline plus Diesel Oil
- d. 600 " " - Amino Caprolactam (8949)  
(Dr. Paul Maass has written me (September 1953). that production has been increased to 3600 tons)
- e. Unknown quantity - Catalysts
- f. " " - Amines
- g. " " - condensation products (as glue)
- h. More than 1000 metric tons - Cyclohexanol and Cyclohexanone
- i. Unknown quantity - condensation products from cyclohexanone and formaldehyde (lacquers, etc.)

2. It is difficult to give information about the plant equipment because the plant was constructed, especially the compressors and the gas fabrication equipment, to enable shifting of the main production (ammonia, gasoline, and methonal) to meet the requirements. There would also be a difference if the synthesis gas was compressed and the carbon dioxide washed out at a pressure of 25 atmospheres, or if the synthesis gas was washed by an ammonia solution at normal pressure and then compressed. It is clear that in the latter case the production capacity of the compressors would be much higher. The picture is further complicated because there was not only the normal five step compressors (end pressure was 220 - 250 atmospheres) but also the front compressors which worked in three steps to 25 atmospheres and increased the capacity of the normal compressors to balance the loss of the carbon dioxide volume.

3. At Leuna, the production value was expressed in Touren, or revolutions per minute. This means that a 1000 horsepower compressor with 100 revolutions per minute would have a suction of;

	Summer	Winter
Ammonia synthesis gas - cubic meters per hour	3200	3460
hydrogen for coal hydrogenation	1800	2000
methanol synthesis gas	2600	2800
isobutanol synthesis gas	2600	2800

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-2-

50X1

One hundred touren would produce in one 24 hour day;

10.5	metric tons of nitrogen as ammonia
20-22	" " " methanol or raw isobutanol
25	" " " gasoline from tar
40	" " " diesel oil from tar

At the time of the highest production (March 1944) 18,000 touren were run. That is, 180 one thousand horsepower compressors with one hundred touren. In October 1945 only 6100 touren were possible, 3030 for ammonia and 3070 for gasoline. See enclosure "A" for a list of the compressors at Leunawerk.

The 1944-1945 air raids knocked out at least half of the compressor capacity. We were surprised that the gas fabrication was not attacked because this would have caused a total shutdown.

The length of an ammonia converter was approximately 18 meters and the diameter was approximately 18 meters and the diameter was approximately 0.90 meters. The cylinders were constructed by Hoerder in Bochum, the internal works at Leunawerk, and the remainder by I. G. Farben, Ludwigshafen. 22 ammonia converters at the plant. The powerhouse, building 990, with its 140 atmosphere steam engine turbo generators, was dismantled.

50X1

## Enclosure "A"

Building	No.	Driven by	"Tourenzahl"	Possible Use	Remarks
7	1Z	steam	130	Hy	
"	2Z	"	"	"	
"	3Z	"	"	"	
"	4Z	"	"	"	
"	5Z	"	"	"	
"	6Z	"	"	"	Damaged; 12-1-45 repaired
"	I	"	110		Total loss
"	II	"	110	Hy and Meth	
"	III	"	110	"	
"	IV	"	110	-	Total loss
8	1Z	"	130	N and Hy	
"	2Z	"	130	N and Hy	
"	I	"	110		Total loss
"	II	"	110		damaged; now repaired
"	III	"	110		damaged; now repaired
"	IV	"	110	Hy	
"	V	"	110	Hy	
"	VI	"	110	Hy	
"	VII	"	110		Heavy damage
"	VIII	"	110		" "
187	1	el.	500	Hy, N	
"	2	el.	500	Hy, N	Damaged, 12-12-45 repaired
"	3	el.	500	Hy, N	
281	II	el. Twin	700	Hy	Damaged, repaired, dismant.
"	VI	Otto Eng	200	Hy	Damaged, repaired

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-3-

50X1

Building	No.	Driven by	"Tourenzahl"	Possible Use	Remarks
165	I	Otto Eng.	300		Damaged
"	II	"	300		"
"	III	"	300		"
"	IV	"	300		"
"	V	"	300		"
"	VI	"	300		"
"	VII	"	300		"
"	VIII	"	300		"
"	IX	"	300		"
"	X	"	300	N	" ; repairs finished
"	XI	"	300	N	" " " Dec. 45 }
"	XII	"	300	N	"
"	XIII	"	300	N	"
"	XIV	el. Twin	700	N	dismantled; given back?
"	XV	el.	150	N	damaged; repaired
"	XVI	el.	150	N	"
167	I	Otto Eng.	300		damaged; probably repaired
"	II	"	300		"
"	III	"	300		"
"	IV	"	300		"
"	V	"	300		damaged; repaired
"	VI	"	300		damaged; repaired
"	VII	"	300	Hy, N	used as add. compr.
"	VIII	"	300	Hy, N	"
"	IX	"	300		damaged, in repair
"	X	"	300		"
"	Turbo	Steam	1100	N	damaged, repaired
246	I	el.	150	Hy, N	
"	II	Steam	110	Hy, N	
"	III	"	110	Hy, N	
"	IV	"	110	Hy, N	
"	V	"	110	Hy, N	
"	VI	"	110	Hy	changed to N
"	VII	"	110	Hy, N	
"	VIII	"	110	Hy, N	
"	IX	"	110	Hy, N, Meth	
"	X	"	110	Hy N, compr. N	
"	XI	"			Total loss
"	XII	"	110	Hy, N, compr. N	
"	XIII	"	110	Hy, N, compr. N	

Hy means Hydrogen for coal- or tar- hydrogenation  
N " Ammonia-synthesis gas  
Meth " CO and Hydrogen-mixture for production of methanol or isobutanol  
compr. N. compressed nitrogen

The compressors were built by several different companies.

710.2	4M/C	4/735.823	4M/C	-end-
4/711.271	4M/C	711.177	4M/C	
711.271	4M/C	4/711.177	4M/C	
4/711.128	4M/C	711.121	4M/C	
711.128	4M/C	4/711.121	4M/C	
4/735.61	4M/C	711.122	4M/C	
4/735.63	4M/C	4/711.122	4M/C	
735.61	4M/C			
735.63	4M/C			
735.823	4M/C			

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